

LISTING OF CLAIMS

1. (currently amended) A message processing device for communicating with remote units over at least one data network and with at least one dedicated CPU comprising:

a first execution unit for receiving a message to be processed from a remote monitoring unit and determining a kind of processing treatment to be performed with the received message based on configuration data of said message processing device and information encoded in the received message;

a second execution unit comprising at least one process execution unit for executing a process to perform said determined processing treatment on said received message, wherein said second execution unit additionally comprises a first set of registers for storing message specific information specifying the data contents and said determined processing treatment of the received message and wherein said at least one process execution unit comprises three or more process execution units having access to said first set of registers to obtain said message specific information for performing said determined processing treatment and wherein said process execution units are selectively invoked based on the determined processing treatment; and

a third execution unit for presenting the result of the determined processing treatment to be forwarded to a destination unit comprising at least one dedicated CPU.

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2. (previously presented) The device according to claim 1, wherein said first execution unit comprises a memory device for storing control information being used to determine the processing treatment to be performed with the received message.

3-7 (canceled)

8. (currently amended) The device according to ~~claim 6,~~ claim 1, wherein said second execution unit comprises a second set of registers being connected to said at least one process execution unit for storing information needed by said process execution unit.

9. (canceled)

10. (currently amended) The device according to ~~claim 6,~~ claim 1, wherein said second execution unit is configured to monitor the first set of registers in order to start processing the received message once a process execution unit is available for processing.

11. (canceled)

12. (previously presented) The device according to claim 1, wherein said third execution unit is configured to monitor a first set of registers in order to start presenting the result of said message processing once the processing of said received message is complete.

13. (previously presented) The device according to claim 2, wherein said first execution unit comprises an interface for

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configuring said memory device with said control information being used to determine the processing treatment to be performed with the received message.

14. (original) A message processing device as recited in claim 1, further comprising a switchboard device for providing a communication connection to said data network and to said dedicated CPU.

15. (previously presented) The message processing device according to claim 14, wherein said switchboard device comprises a multiplexer connected to said first and third execution unit and for providing connections to several bus adapters and said CPU.

16. (previously presented) The message processing device according to claim 15, wherein said switchboard device further comprises an interrupt bus connected to the first execution unit and to several bus adapters and said CPU.

17. (previously presented) The message processing device according to claim 15, wherein said switchboard device further comprises a controller for controlling said multiplexer, whereby said controller is configured to be controlled by either said third execution unit or said CPU.

18. (previously presented) The message processing device according to claim 16, wherein said switchboard device further comprises a controller for controlling said multiplexer, whereby said controller is configured to be controlled by either said third execution unit or said CPU.

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19. (previously presented) A method for message processing in a system for communicating with remote units over at least one data network and with at least one dedicated CPU the method comprising the steps of:

receiving a message to be processed from a remote monitoring unit and determining the kind of message processing treatment to be performed with said received message based on configuration data of said message processing device and information encoded in the received message and determining a number of process execution units required to perform said message processing treatment;

storing message specific information specifying the contents of said received message and said determined message processing treatment of said received message into a first set of registers;

monitoring at least one process execution unit and said first set of registers in order to start processing said received message once the required number of process execution units are available for processing;

performing said determined message processing treatment, whereby said processing is executed sequentially, in parallel, or both sequentially and in parallel;

monitoring said first set of registers in order to start presenting the result of said determined message processing treatment once the processing of said message is complete; and

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presenting the result of said message processing to be forwarded to a destination unit comprising at least one dedicated CPU.

20. (previously presented) The method according to claim 19, further comprising an initial step of storing control information being used to determine the message processing treatment to be performed with the received message.

21. (previously presented) A computer program product stored on a computer usable medium, comprising a computer readable program for causing a computer to perform a method for communicating with remote units over at least one data network having at least one CPU, said method comprising:

receiving a message to be processed from a remote monitoring unit and determining the kind of message processing treatment to be performed with said received message based on configuration data of said message processing device and information encoded in the received message and determining a number of process execution units required to perform said message processing treatment;

storing message specific information specifying the contents of said received message and said determined message processing treatment of said received message into a first set of registers;

monitoring at least one process execution unit and said first set of registers in order to start processing said received message once the required number of process execution units are available for processing;

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performing said determined message processing treatment, whereby said processing is executed sequentially, in parallel, or both sequentially and in parallel;

monitoring said first set of registers in order to start presenting the result of said determined message processing treatment once the processing of said message is complete; and

presenting the result of said message processing to be forwarded to a destination unit comprising at least one dedicated CPU.

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